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DIABETOLOGIST´S APPROACH TO THE PATIENT WITH TYPE 2 DIABETES AND CARDIOVASCULAR DISEASE

Thisissuedealswiththeproblemoftherapeuticapproachtothediabeticpatientswithcardiovasculardisease. The authors discuss their own experience indealing with thiskindofpatientsincomparisonwiththeInternational recommendations. It is stated that arterial hypertension is a multifactorial disease subjectand poses a great risk for severe organ damage. Thus proper diagnosis and healing process in diabetic patients with cardiovascular disease requires a knowledgeable doctor. Its decisions and recommendations can significantly affect the fate of such patients in the near and distant future.

Key words: diabetes mellitus, cardiovascular disease, rational treatment, therapeutic indications

Introduction. Diabetes mellitus and cardiovascular disease represents a combination of malignant diseases of the patient. Also the presence of one of these diseases increase the risk of the other co-morbidity in said individual. For example, the prevalence of coronary heart disease in diabetics, is 2 times higher than in non-diabetics, the incidence of acute coronary syndrome is up to 4 times higher and mortality 2 times higher in diabetics than non-diabetics. Cardiovascular disease is the cause of more than 53% of deaths in diabetics. Therefore, the issue of treatment of diabetic cardiovascular disease is very serious.

In 2013 ESC / ESH (European Society of Cardiology and Hypertension) revise the strategy of treatment for diabetes and recommends:

- always begin treatment at BP over 140/90 mmHg, initial treatment stage higher normal blood pressure can be recommended if microalbuminuria is present,
- traditionally recommended target BP in diabetes, below 130/80 mmHg, is not supported by evidence and moreover it can be difficult to achieve in most patients,
- all major classes of antihypertensive drugs provide protection against cardiovascular complications, probably due to the protective effect of BP lowering itself, in the treatment can be used all known drug groups,
- required combined pharmacological treatment, RAS blockers should always be part of combination therapy,
- in diabetic hypertensive patients is beneficial strict glycemic control (HbA1c to 6.5%), especially with microvascular complications, the combination of the effective glycemic control and blood pressure control increases the protective effect, especially the kidneys,
- the strict glycemic control should not strive suddenly – because of increased risk of severe hypoglycemic events,
- antihypertensive therapy provides a greater protective effect against renal complications, while evidence of a similar effect on eye and nerve complications not as clear.

Intense and complex treatments of many major sophisticated international study has diabetic patient with cardiovascular comorbidity essential. Main advantages:

- metformin reduces the risk of death, micro-and macrovascular complications / UKPDS /,
- Gliclazide MR + multifactorial intervention to reduce the incidence of macro- and microvascular complications of diabetes by 50% / STENO-2 /,
- intensive treatment reduces the risk of macro- and mikrovascular complications by 10% / DCCT /
- intensively treated diabetics have a higher risk of CV death / ACCORD /,
- intensive treatment is important in diabetic patients with short duration of disease / VADT /,
- intensified treatment reduces the risk of microvascular complications / DCCT /,
- the persistence of long-term euglycemia - reducing the risk of CV disease by 42% / EDIC /,
- reduction of pathologically elevated HbA1c by 1% reduces the risk of MI by 14%.

From this perspective, efforts of pharmaceutical companies to prepare the most effective pharmaceuticals that would be beneficial in the presence of a com-

bination of these co-morbidities. What should be the ideal antihypertensive agent in type 2 DM. Recommended following features are such a formulation:

- ideal BP / P ratio
- does not affect the water and ionic balance
- does not interact with the OAD
- does not negatively affect IR and IS
- does not interfere with glycemic control
- is metabolically neutral
- does not worsen ED
- does not cause postural hypotension.

Materialsandmethods. At the Department of Internal Medicine, University Hospital J. A. Reiman Prešov hospitalized annually about 350 diabetics (23% of all hospitalized patients) who also have cardiovascular involvement. Briefly, we present our progress in these patients:

- clinical evaluation (history, physical examination, laboratory finding),
- additional examination - micro / macrovascular complications,
- augmented glycemic profile (2-3 days), analysis of ambulatory blood glucose,
- evaluation of HbA1c in recent months,
- consultative examination: cardiologist, nephrologist (38% of patients on HD are diabetic), ophthalmologist, neurologist.

What we repeatedly during hospitalization certifies:

- short-term treatment with insulin iv in the deterioration of type 2 DM and gradual transition to sc KIT, later OAD + KIT
- some patients with DM type 2 also require intensified insulin regime
- the majority of patients with hypertension, ischemic heart disease, congestive heart failure require at the end of hospital treatment insulin therapy

Resultsanddiscussions. The most common problems encountered in these patients during hospitalization:

- treatment with short-acting insulin according to blood glucose (especially in emergency services),
- impatience of healthcare professionals in diabetes compensation (compensation two – three days);
- unnatural movement regime - the patient in the hospital has less movement,
- uncontrolled energy intake, low spending,
- increased number of tests in which the patient must be fasting or reguire special preparation,
- not always enough time for patient education and his family.

Here are some indications of drug classes such as drugs of choice for the coincidence of cardiovascular disease and diabetes.

For ACE-I shall be decided at:

- arterial hypertension with chronic heart failure
- hypertension confirmed with echocardiographic left ventricular systolic dysfunction without overt heart failure,
- hypertension after myocardial infarction with left ventricular systolic dysfunction,
- hypertension in diabetes with an established diabetic nephropathy,
- hypertension with renal parenchymal disease, which is accompanied by proteinuria or renal insufficiency.

Beta blockers areindicated indiabetics for:

- the treatment of ischemic heart disease,
- prevention of arrhythmias in cardiac autonomic neuropathy
- in chronic heart failure
- ARBs we prefer at:
- neuropathy,
- microalbuminuria / proteinuria,
- left ventricular hypertrophy,
- in the inappropriate cough to ACE-I

Conclusion. Arterial hypertension is a multifactorial disease subject. It poses a great risk for severe organ damage (heart, brain, kidneys etc.). Proper diagnosis and healing process in diabetic patients with cardiovascular disease requires a knowledgeable doctor. Its decisions and recommendations can significantly affect the fate of such patients in the near and distant future.

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ПІДХІД ДІАБЕТОЛОГА ДО ПАЦІЄНТА ІЗ ЦУКРОВИМ ДІАБЕТОМ 2 ТИПУ ТА СЕРЦЕВО-СУДИННИМ ЗАХВОРЮВАННЯМ

У статті досліджено проблему терапевтичного підходу до ведення хворого із цукровим діабетом та серцево-судинним захворюванням. Автори діляться власним досвідом ведення таких пацієнтів у порівнянні із міжнародними рекомендаціями. Стверджується, що артеріальна гіпертензія є мультифакторною хворобою, яка становить значний ризик ураження органів-мішеней. Саме тому належна діагностика та лікування цих хворих вимагають добре поінформованого лікаря. Його міркування та рішення можуть суттєво вплинути на долю таких пацієнтів у близькому та віддаленому майбутньому.

Ключові слова: цукровий діабет, серцево-судинне захворювання, раціональне лікування, терапевтичні показання

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